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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,772	02/05/2000	Alex Krister Raith	P-4015.398/P10569-BMOT-US	9286

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David E Bennett
Coat & Bennett PLLC
PO Box 5
Raleigh, NC 27602

EXAMINER	
IQBAL, KHAWAR	

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/498,772	Applicant(s) RAITH, ALEX KRISTER	
	Examiner Khawar Iqbal	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-5,8-26,32-43 and 45-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5,8-26,32-43 and 45-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2-5,8,9,12-23,26,32-43,45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wan (6385460).

Regarding claim 3 Wan teaches a method of channel selection for a mobile station comprising (abstract, figs. 1-8):

determining a position of said mobile station (col. 6,lines 20-35, col. 7, lines 6-16),

periodically performing channel quality measurements of signals transmitted from one or more base stations wherein a frequency of performing said channel quality measurements is a function of said position of said mobile station (col.2, lines 15-60).

frequency of performing said channel quality measurements is a function of said mobile station with respect to a first base station serving said mobile station and at least one additional base station (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67, col. 12, line25-col. 13, line 15). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically

teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 4 and 5 Wan teaches position of said at least one additional base station is transmitted to said mobile station by said first base station (col. 2, lines 15-60, see above).

Regarding claims 2,9,12-14 and 16-19 Wan teaches frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station ((col.2, lines 5-60, col. 12, line25-col. 13, line 15, see above).

Regarding claim 8 Wan teaches a method of channel selection for a mobile station comprising (abstract, figs. 1-8):

determining a position of said mobile station (col. 3, 55-67),

periodically performing channel quality measurements of signals transmitted from one or more base stations wherein a frequency of performing said channel quality measurements said mobile station (col. 6,lines 20-35, col. 7, lines 9-16);

wherein said frequency selection method said channel quality measurements is a function length of time said mobile station remains (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67, col. 12, line25-col. 13, line 15). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claim 15 Wan teaches a method of determining the position of a mobile station (abstract, figs. 1-8) comprising:

determining a position of said mobile station at a first time instant updating said position periodically (col. 6,lines 20-35, col. 7, lines 6-16),

wherein a frequency of said updating is a function of said position of said mobile station (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67, col. 12, line25-col. 13, line 15). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several

techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 20-23 and 26 Wan teaches frequency of performing said channel quality measurements is a function of the mobility of said mobile station (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67 see above).

Regarding claims 33-35 and 37 Wan teaches a mobile station comprising (abstract, figs. 1-8):

a transceiver transmitting and receiving radio frequency signals (col.3, lines 45-55);

a signal processor operatively connected to said transceiver, said signal processor periodically performing channel quality measurements on selected signals received by said transceiver (col. 5, lines 5-45, col. 7, lines 9-16);

control logic controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function said mobile station (col. 5, lines 5-66, col. 8, lines 11-67);

Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 32 and 36 Wan teaches teach a mobile station comprising (abstract, figs. 1-8):

a transceiver transmitting and receiving radio frequency signals (col. 5, lines 5-45, col. 7, lines 9-16);

a signal processor operatively connected to said transceiver, said signal processor periodically performing channel quality measurements on selected signals received by said transceiver (col. 5, lines 5-45, col. 7, lines 9-16);;

control logic controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function of said mobile station (col. 5, lines 5-66, col. 8, lines 11-67);

Wherein said control logic varies the frequency of performing said channel quality measurements base on the length of time said mobile station remains (col. 4, lines 37-64, col. 8, lines 11-67, col. 12, lines 25-col. 13, line 15, figs. 5-8). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 38-43 Wan teaches a mobile station comprising (abstract, figs. 1-8):

a transceiver transmitting and receiving radio frequency signals (col. 3, lines 45-55);

a positioning receiver periodically determining a position of said mobile station (col.7, lines 9-16);

control logic controlling said transceiver and said positioning receiver, wherein said control logic varies the frequency of determining said mobile station as a function of

said position (col. 4, lines 37-64, col. 8, lines 11-67, col. 12, lines 25-col. 13, line 15, figs. 5-8). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 46-48 Wan teaches a method of controlling a mobile station comprising (abstract, figs. 1-8):

determining a position of said mobile station (col. 7, 9-16);

and

performing a periodic task, wherein a frequency of performing said task is a function of said mobile station (col.2, lines 15-60),

Wherein said frequency of performing said periodic task is a function of said mobile of mobile station with respect to a first base station serving said mobile station at least one additional base station (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67, col. 12, line25-col. 13, line 15). Wan discloses speed is function of changing

position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

Regarding claims 45,49 Wan teaches a method of controlling a mobile station comprising (abstract, figs. 1-8):

determining a position of said mobile station (col. 6,lines 20-35, col. 7, lines 6-16);

performing a periodic task, wherein a frequency of performing said periodic task is a function of said position of said mobile station (col.2, lines 15-60),

wherein said frequency of performing said periodic task is a function of length of time said mobile station remains (figs. 5-8, col. 4, lines 37-53, col. 8, lines 10-67, col. 12, line25-col. 13, line 15). Wan discloses speed is function of changing position. The mobile station may determine the speed or the rate of change of the received signal strength using several techniques (GPS) and can identify the location of an object and GPS may allow the mobile station to calculate its position. Wan does not

specifically teach exact position of the mobile station relative of the base station. But its speed or rate of change concerns the position in order to make measurement more accurate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specifically adjust the frequency of the channel measurements as a function of the relative position of the mobile station with respect to a first base station serving the mobile station and at least one additional base station in order to get more accurate results at the boundary of cells when handoffs are more of a concern as suggested by Wan.

3. Claims10, 11,24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wan (6385460) and further in view of O'Neal et al (# 6263064).

Regarding claims 10,11,24 and 25 Wan does not specifically teach packet switched call and circuit switched call. In an analogous art, O'Neal et al disclose packet switched call and circuit switched call (col. 10, lines 45-67, col. 11, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of O'Neal et al user packet switched call and circuit switched call modify into the system of Wan channel selection procedures very depending on whether circuit-switched or packet-switched connection are used in wireless communication system.

4. **Response to Arguments**

Applicant's arguments with respect to claims 2-5,8-26,32-43,45-49 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **EDWARD URBAN**, can be reached at 703-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2684 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600